

Work Order ID 166335

Friday, September 15, 2017 11:20:17 AM

166335

Page 2

Item ID: D4593-1 Accept *N9000240100* Setup Start *NS1*
Revision ID: Base Stop *NS2*
Item Name: Base
Start Date: 9/15/2017 Start Qty: 2.00 *9*
Required Date: 9/22/2017 Req'd Qty: 2.00 *9*
Reference: Cust Item ID:
Customer:

Approvals: Process Plan: Date: Tooling: Date: Run Start *NR1*
QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC8- Inspect parts - second check	0.00							
130									
QC									
Quality Control									

140 Chemical Conversion Coat per QSI005 4.1 0.00
140
Hand Finish Memo 0.00
Hand Finishing

150 Fire Red(Ref 4.3.10) per QSI005 4.3 0.00
150
Powdercoat Memo 0.27
Powder Coating

Memo
Heat oven at temperature for 45 minutes before putting part in oven by: _____
Start Time: 7:12 320
Oven Temperature: 320
Finish Time: 7:40

(12) 2017-09-20 JSC
BEB.

24 1709-20. 2288



DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part No. _____		Rework Scrap Use-as-is Suspected Unapproved		Skid-tube Machining Thermoforming Large Fab		Cross tube Small Fab Finishing Composite		Water Jet Prod. Eng. Coord. Rec/Store/Packaging Supplier		Engineering Quality Other	
NCR No. _____		Step #: _____		QTY Effective : _____		MRB (QS1042) Approval					
Date : _____		Description Work Order Deviation		Disposition							
Work Order Cause		Completed By									
Work Order Effect		Lead hand / Supervisor Approval Verification									
QC / QA Coordinator Approval		QC / QA Coordinator Approval									
FAULT CATEGORY											
Root Cause		Positioned Wrong									
Environment		Outside Dimensions									
Design		Over/Under tolerance									
Doc/Data		Part Incorrect									
Equip/Tooling		Part Lost/Missing									
Handling/Pre		Part Moved									
Material		Drawing									
Internal Transport		Finish									
Tribal Knowledge		Misread									
LOA		Turning Sequence									
Substation		Power Loss/Surge									
Past Expiry Date		Folio/Program									
Misidentified		Grain									
		Weld									
		Wrong Stock Pulled									
		Out of Sequence									
		Off-set									
		Misaligned									
		Fit/Function									
		Misaligned/off center									
		OTHER : _____									

Work Order ID 166335

Friday, September 15, 2017 11:20:17 AM

166335

Item ID:	D4593-1	Accept	*N9000040100*	Setup	Start	*NS1*
Revision ID:				Stop		*NS2*
Item Name:	Base					
Start Date:	9/15/2017	Start Qty:	2.00			
Required Date:	9/22/2017	Req'd Qty:	2.00			
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC3- Inspect Part Finish	0.00			DAS 30 9-89	2			SEP 20 2017
160									
QC									
Quality Control	Memo	0.00							

170	Identify as per dwg & Stock Location: GA	0.00			DAS 30 9-89	2			SEP 20 2017
170									
Packaging									
Packaging	Memo	0.00							

180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC									
Quality Control	Memo	0.00							

DAS
21
9-89 SEP 21 2017

17/9/22

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION ☐ Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐ Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other		AGAINST DEPARTMENT/PROCESS			
Date : _____		Step #: _____		QTY Effective : _____		MRB (QS042) Approval	
Description Work Order Deviation		Disposition		Completed By		Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY		QC / QA Coordinator Approval		Positioned Wrong Outside Dimensions Over/Under tolerance Part Incorrect Part Lost/Missing Part Moved Drawing Finish Misread Turning Sequence	
Environment Design Doc/Data Equip/Tooling Handling/Pre Material Internal Transport Tribal Knowledge LOA Substation Past Expiry Date Misidentified		No Re-verification Operator Offset/Setup Supplier Training Use for Testing Poor Information Rushing Product Improvement Process Improvement Manufacturing Process Past Due		Pressure/Forced Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Wave/Twist in Tube Marks/Chatter		Temperature/Cure Set-up BOM/Route Broken/Damage/Defect Inspection Incomplete/Unqualified Contamination Countersink Cut Too Short Instructions Incomplete/Unclear Drill Holes	
Power Loss/Surge Folio/Program Grain Weld Wrong Stock Pulled Out of Sequence Off-set Mislabeled Fit/Function Misaligned/off center		OTHER : _____		_____		_____	

Picklist Print

Friday, September 15, 2017 11:20:22 AM

Work Order ID: 166335

Parent Item: D4593-1

Parent Item Name: Base

166335

D4593-1

Start Date: 9/15/2017

Required Date: 9/22/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A NEW ISSUE 12-02-27 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B1.000X02.50 0		Purchased	No			100	f	13.7370	0.356	0.712			

M6061T6R1 000X02 500

**

Maurice

6061-T6 Bar 1.00 x 2.50

Location
MAT003
→ M137365

Loc Qty
13.737
13.737

Loc Code

0.1

H:/FORMS/Quality Assurance/approved QA/NCRWO Rev I

DART AEROSPACE LTD		Work Order:	16635
Description: Base		Part Number:	D4593-1
Inspection Dwg: D4593	Rev: A		Page 1 of 1

[illegible]

DQA: _____ Date: _____

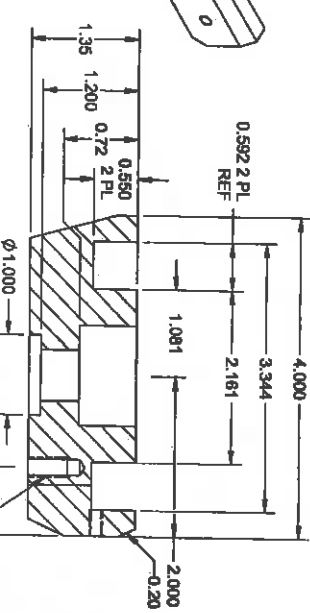
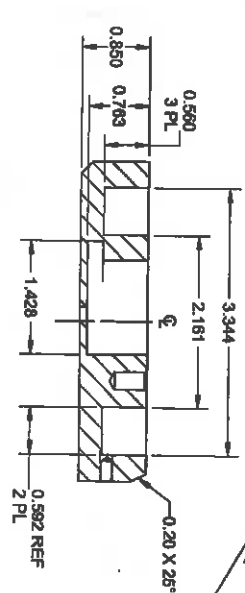
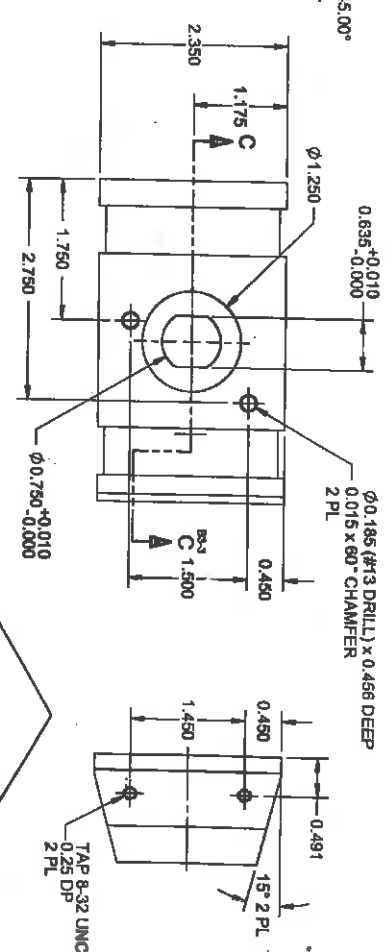
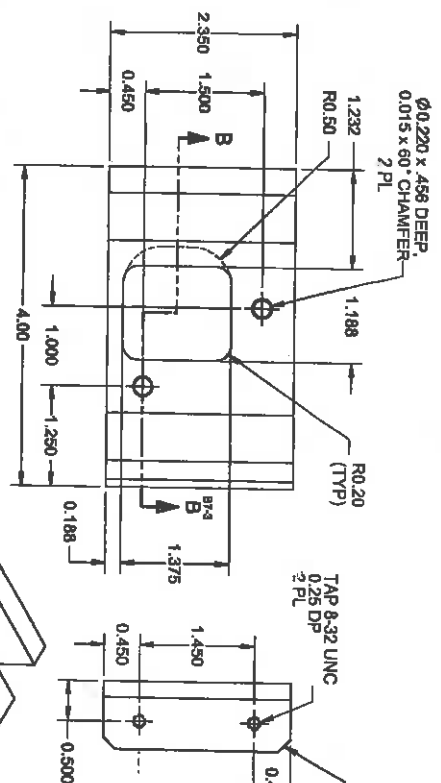
WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS																			
Part No. _____		Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐		Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐		Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐		Engineering ☐ Quality ☐ Other ☐													
NCR No. _____		Date: _____		Step #: _____		QTY Effective: _____		MR8 (QS1042) Approval															
Description Work Order Deviation				Disposition				Completed By															
								Lead hand / Supervisor Approval Verification															
								QC / QA Coordinator Approval															
Root Cause				FAULT CATEGORY																			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐				No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐				Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐				Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐				Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____																							



SECTION B-B

SECTION C-C

D4593-1 BASE

D4593-3 COVER

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE

- NOTES:**
- 1) MATERIAL: 6061-T6/6061 PER QQ-A-200/8 OR QQ-A-225/8 OR ASTM B211 OR ASTM B221
 - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 006 4.1
 - 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) ALL DIMENSIONS ARE IN INCHES
 - 5) BREAK ALL SHARP EDGES 0.005 TO 0.010
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: N/A
 - 8) MASK INSIDE HOLES PRIOR TO FINISH

DESIGN	RP	RP	DART AEROSPACE LTD
DRAWN	MP	MP	HAWTHORNE, ONTARIO, CANADA
CHECKED	MP	MP	
MG. APPR.	MP	MP	
APPROVED	MP	MP	
DE APPR.	N/A	N/A	
DATE	12.02.17		
TITLE			PEDAL LOCK ASSEMBLY
SCALE			SCALE
NTS			NTS

RELEASED
2012-02-23

WORK ORDER
NO. 160351 MS
17-09-15

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order update only

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION ☐ Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐ Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other		AGAINST DEPARTMENT/PROCESS			
Date : _____		Step #: _____		QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition				Completed By	
						Lead hand / Supervisor Approval Verification	
						QC / QA Coordinator Approval	

Root Cause		FAULT CATEGORY									
Environment	No Re-verification	Pressure/Forced	Temperature/Cure	Power Loss/Surge	Positioned Wrong						
Design	Operator	Bending	Set-up	Folio/Program	Outside Dimensions						
Doc/Data	Offset/Setup	Centre Not Concentric	BOM/Route	Grain	Over/Under tolerance						
Equip/Tooling	Supplier	Cracks	Broken/Damage/Defect	Weld	Part Incorrect						
Handling/Pre	Training	Crimp/Kink/Ripple/Wave	Inspection Incomplete/Unqualified	Wrong Stock Pulled	Part Lost/Missing						
Material	Use for Testing	Cuffs	Contamination	Out of Sequence	Part Moved						
Internal Transport	Poor Information	Crushing	Countersink	Off set	Drawing						
Tribal Knowledge	Rushing	Heat Treat	Cut Too Short	Mislabeled	Finish						
LOA	Product Improvement	Wave/Twist in Tube	Instructions Incomplete/Unclear	Fit/Function	Misread						
Substation	Process Improvement	Marks/Chatter	Drill Holes	Misaligned/off center	Turning Sequence						
Past Expiry Date	Manufacturing Process										
Misidentified	Past Due										
		OTHER :									